CONTROL STRATEGY FOR LOAD SHARING BETWEEN A FRICTION CLUTCH AND ONE-WAY CLUTCH TO EFFECT LOW AND REVERSE GEAR RATIOS IN A TRANSMISSION

ABSTRACT OF THE DISCLOSURE

Pursuant to the control strategy of the present invention, torque load may be shared between the low/reverse friction clutch and a one-way clutch to effect low and reverse gear ratios in a transmission. This may be accomplished by engaging the friction clutch during vehicle launch and keeping it engaged until the peak torque has passed. Once the peak torque has been passed, the load capacity of the friction clutch can be reduced to zero. In this operational mode, the one-way clutch is acting to support the remaining drive torque. Thus, with only the one-way clutch carrying a load at the time of the up-shift from first to second gear, a non-synchronous shift can be affected. In this way, the control strategy acts to share the torque load between the low/reverse brake and the low one-way clutch, thereby allowing a reduced capacity, lower spin-loss one-way clutch design.